

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK

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BRAINWAVE SCIENCE, INC.,	:	
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Plaintiffs,	:	<b><u>FINDINGS OF FACT AND</u></b>
	:	<b><u>CONCLUSIONS OF LAW ON</u></b>
- against -	:	<b><u>PLAINTIFF'S MOTION FOR A</u></b>
	:	<b><u>PRELIMINARY INJUNCTION</u></b>
	:	
ARSHEE, INC., DR. LAWRENCE A.	:	21-cv-4402 (BMC)
FARWELL, DR. THIERRY MAISON, and	:	
the BRAIN FINGERPRINTING	:	
FOUNDATION,	:	
	:	
Defendants.	:	
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COGAN, District Judge.

This case involves the alleged theft of brainwave detecting technology designed to facilitate the humane questioning and interrogation of suspects. Plaintiff Brainwave Science, Inc. (“BWS”) believes its former Chief Technology Officer, Dr. Thierry Maison, and the Chief Science Officer of its predecessor in interest, Brainwave Science LLC, Dr. Lawrence Farwell, stole technology and research that qualifies as protected trade secrets. BWS also believes Dr. Farwell and Dr. Maison worked with defendants Arshee, Inc., and the Brain Fingerprinting Foundation (“BFF”) to develop and sell similar technology.

The question before this Court is whether it should issue a preliminary injunction requiring defendants to: (1) immediately return to plaintiff all documents and electronic files in their possession, custody or control containing BWS’s trade secrets; (2) identify all persons and entities to whom they have disclosed BWS trade secrets; (3) recall all software containing BWS trade secrets; and (4) obtain independent third-party confirmation, at plaintiff’s sole expense, that any software demonstration, sale or transfer does not include BWS trade secrets. For the reasons

discussed below, the Court grants plaintiff's motion for a preliminary injunction but adopts more limited terms with a view to maintaining the status quo.

### **FINDINGS OF FACT**

The Court finds the following facts after holding an evidentiary hearing on plaintiff's motion, at which the Court accepted the parties' affidavits as the affiants' direct testimony and permitted each side to cross-examine the opposing parties' affiants. See Fed. R. Civ. P. 43(c).

BWS is a technology company that believes it has developed a way of measuring human P300 brainwaves to determine if a subject knows certain information. BWS intends to sell this technology to law enforcement agencies and governments around the world. It believes that its system, iCognitive®, will improve the effectiveness of criminal interrogations.

Defendants Dr. Farwell and Dr. Maison held executive positions in either BWS or its predecessor entity and helped develop those firms' product. Dr. Farwell was the Chief Science Officer in BWS's predecessor company from 2012 until November 2016, and Dr. Maison was the Chief Technology Officer from June 2013 until February 2019. Both defendants had extensive access and input into the development and structure of what became iCognitive. But Dr. Maison played a particularly critical role – he led BWS's efforts in refining this system's algorithms, source code, “back end” programming, and user interfaces.

BWS went to significant lengths to protect its proprietary work. These measures included storing all pertinent code in a secure cloud-based server and working in an office that has visitor control systems, alarming/self-locking doors, and twenty-four live security personnel. BWS also requires all employees, vendors, sales partners, and potential clients to execute confidentiality and non-disclosure agreements prior to viewing or operating its system.

Upon hire, Dr. Maison entered into an Employment Agreement, a Non-Disclosure and Non-Competition Agreement, and a Confidentiality and Rights Agreement. Upon separation, Dr. Maison also entered into a Separation Agreement wherein he explicitly acknowledged his ongoing obligations under the agreements he signed when he was first hired. Relatedly, although Dr. Farwell did not assent to an NDA, he did sign a Nunc Pro Tunc Intellectual Property Acknowledgement and Assignment with BWS's predecessor. In that document, Dr. Farwell assigned BWS's predecessor all of his "rights, title and interests in and to any and all Developed IP, including, without limitation, [his] entire right, title and interest in and to all patents, copyrights, trade secrets, trademarks, moral rights and other intellectual property rights in and to all such Developed IP, and any goodwill associated therewith."

In April 2021, BWS found itself competing with defendants and non-party Tracer Electrocom for a contract to sell P300 brainwave detecting software and systems to a law enforcement agency in Bangladesh. BWS received reports from its sales partner that the user interface utilized by defendants' product was identical to the interface designed and implemented by Dr. Maison during his employment with BWS. In a subsequent email exchange on June 28, 2021, Dr. Maison provided BWS with access to a programing repository containing defendants' source code. Brainwave's development team subsequently utilized a Code Similarity Checker, Codequiry®, to perform a "Measure Software Similarity" analysis. Codequiry's analysis indicated a 98–99% likelihood of "plagiarism" by Farwell's software. Plaintiff then brought this action under the Defend Trade Secrets Act ("DTSA") in August 2021, seeking equitable relief and monetary damages.

## CONCLUSIONS OF LAW

A party seeking a preliminary injunction must demonstrate:

(1) “a likelihood of success on the merits or . . . sufficiently serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly in the plaintiff’s favor”; (2) a likelihood of “irreparable injury in the absence of an injunction”; (3) that “the balance of hardships tips in the plaintiff’s favor”; and (4) that the “public interest would not be disserved” by the issuance of an injunction.

Benihana, Inc. v. Benihana of Tokyo, LLC, 784 F.3d 887, 895 (2d Cir. 2015) (quoting Salinger v. Colting, 607 F.3d 68, 79–80 (2d Cir. 2010)); see also Winter v. NRDC, Inc., 555 U.S. 7, 20 (2008).<sup>1</sup> Each of these factors weigh in plaintiff’s favor.

### I. Likelihood of Success on the Merits

To succeed on a claim of misappropriation of trade secrets under the Defend Trade Secrets Act, a plaintiff must show that it is (1) “[a]n owner of a trade secret;” (2) the trade secret was “misappropriated;” and (3) “the trade secret is related to a product or service used in, or intended for use in, interstate or foreign commerce.” 18 U.S.C. § 1836(b)(1). The fact that plaintiff was intending to sell iCognitive to a foreign government agency is sufficient evidence that the trade secrets related to it were intended for use in interstate or foreign commerce.

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<sup>1</sup> This Court recognizes the Second Circuit’s more flexible preliminary injunction standard. “For the last five decades, this circuit has required a party seeking a preliminary injunction to show ‘(a) irreparable harm and (b) either (1) likelihood of success on the merits or (2) sufficiently serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly toward the party requesting the preliminary relief.’” Citigroup Global Mkts., Inc. v. VCG Special Opportunities Master Fund, Ltd., 598 F.3d 30, 35 (2d Cir. 2010) (quoting Jackson Dairy, Inc. v. H.P. Hood & Sons, Inc., 596 F.2d 70, 72 (2d Cir. 1979)). “If the Supreme Court had meant . . . to abrogate the more flexible standard for a preliminary injunction [in three recent cases addressing this issue], one would expect some reference to the considerable history of the flexible standards applied in this circuit, seven of our sister circuits, and in the Supreme Court itself.” Id. at 38. However, even under the more stringent standard, which has also been applied by the Second Circuit in other cases, see Benihana, 784 F.3d at 895, a preliminary injunction is warranted.

Defendants do not contest this point. As a result, there are only two issues here concerning plaintiff's likelihood of success on the merits: 1) have plaintiffs made a preliminary showing that they own trade secrets; and 2) have plaintiffs made a preliminary showing that defendants created their program by stealing plaintiffs' trade secrets.

The DTSA defines a trade secret to include "all forms and types of financial, business, scientific, technical, economic, or engineering information . . . if – (A) the owner thereof has taken reasonable measures to keep such information secret; and (B) the information derives independent economic value . . . from not being generally known . . ." 18 U.S.C. § 1839(3).

When a court determines whether a plaintiff has taken reasonable measures to protect trade secrets, it looks at whether the plaintiff used security measures like passwords, alarm systems, and security software. See, e.g., Paz Sys., Inc. v. Dakota Grp. Corp., 514 F. Supp. 2d 402, 405 (E.D.N.Y. 2007) (employer's computer network was stored in a building protected by both commercial locks, passwords and an alarm system, including motion detectors); Wrap-N-Pack, Inc. v. Eisenberg, No. 04-cv-4887, 2007 WL 952069, at \*9 (E.D.N.Y. Mar. 29, 2007); B.U.S.A. Corp. v. Ecogloves, Inc., No. 05-cv-9988, 2006 WL 3302841, at \*4 (S.D.N.Y. Jan. 31, 2006) ("plaintiffs took appropriate measures, such as locking files and using computer passwords, to protect" their proprietary information).

The facts found above are sufficient to demonstrate that plaintiff took reasonable steps to protect its information. Specifically, plaintiff stored its code in a secure cloud-based server and worked in a physical space that maintained visitor control systems like alarming/self-locking doors and security personnel. BWS also required its employees, vendors, sales partners, and potential clients to sign confidentiality and non-disclosure agreements prior to operating its

system. Dr. Farwell did not assent to an NDA, but he did agree to a Nunc Pro Tunc Intellectual Property Acknowledgement and Assignment with BWS's predecessor.

Defendants contend that BWS's procedures did not reasonably protect its code. Specifically, Dr. Maison testified that he found BWS's source code "in a publicly accessible directory with a Google search." Dr. Maison acknowledged that he knew the code was part of BWS's system because he "wrote a good portion of it."

If shown to be accurate, Dr. Maison's claim would eviscerate any trade secret action against defendants. When supposedly secret information is publicly procurable, without some type of reservation of rights, it cannot be proprietary. Democratic Nat'l Comm. v. Russian Fed'n, 392 F. Supp. 3d 410, 448 (S.D.N.Y. 2019) (a "trade secret that becomes public knowledge is no longer a trade secret." (quoting BondPro Corp. v. Siemens Power Generation, 463 F.3d 702, 706 (7th Cir. 2006))).

But Dr. Maison's testimony is unpersuasive. He has failed to articulate where in the vast ocean of the internet he found this pearl. Moreover, when this information was supposedly discovered, Dr. Maison claims he removed its "proprietary portions" because he was aware of its legal significance and origin. Yet at the same time, Dr. Maison maintains that he was simultaneously so oblivious to the possibility of litigation that he did not document the code's location. This profound contradiction undermines Dr. Maison's credibility.

There is also enough evidence here to preliminarily determine that BWS's "information derives independent economic value . . . from not being generally known . . ." 18 U.S.C. § 1839(3)(B). Usually, "[t]he existence of a trade secret is a question of fact." LinkCo, Inc. v. Fujitsu Ltd., 00-cv-7242, 2002 WL 237838, at \*3 (S.D.N.Y. Feb 19, 2002); see Integrated Cash Mgmt. Serv., Inc. v. Digit. Transactions, Inc., 920 F.2d 171, 174 (2d Cir. 1990). Defendants

maintain that they are only using what is known in the public domain, and publicly available information is sufficient to create their system. But given the evidence provided, it is more likely than not plaintiff will be successful in rebutting this position at trial.

BWS's President and CEO concedes that "using P300 'brainwaves' to determine the presence or absence of information within a subject's brain is not proprietary to [BWS]. P300 brainwave testing is the subject of several now-expired patents . . . and [has] been addressed within numerous publicly available scientific studies and journal publications." The dispositive issue, therefore, is whether plaintiff's methods for analyzing these brainwaves are proprietary. Plaintiff has satisfactorily demonstrated that they are.

Plaintiff's evidence in support of its motion for a preliminary injunction shows that the specific algorithms, programs, and user interface developed by plaintiff derive economic value from the fact that they are not generally ascertainable. As Mr. Ika avers:

The challenge in developing and marketing any P300 based system lies not within the concept of P300 measurement itself but in creating a system which, among other things,

- a) prompts testing personnel for appropriate stimuli;
- b) displays stimuli to testing subjects in optimal order and at optimal intervals;
- c) captures appropriate P300 brainwave responses;
- d) disregards and/or eliminates extraneous responses ("noise") which may produce false positive or false negative results;
- e) detects and disregards any attempted countermeasures by suspects or others involved in conducting testing;
- f) performs appropriate analysis of P300 measured responses utilizing statistical and machine learning algorithms and Artificial Intelligence; [and]

- g) generates unbiased reports for use by examiners, investigating agencies and legal authorities.

Brainwave has expended substantial time and resources to address the afore-referenced challenges by developing proprietary software code, user interfaces, algorithms and hardware (“Brainwave Trade Secrets”) to create a system that is accurate, scalable and more-readily utilized by field investigators without extensive scientific training.

Mr. Ika’s testimony is bolstered by the fact that the individual defendants accused of converting plaintiff’s technology had approximately a decade of combined experience as executives at BWS and its predecessor entity. During this time, defendants had direct oversight of the technology at issue. The system defendants ultimately designed and marketed was almost identical to the one owned by plaintiff – showing that some other approach was not obvious, even to two experts in the field. This demonstrates that part of the system’s economic value came from its innovative and unique method of reading and analyzing P300 brainwaves.

Even if this Court were to accept defendants’ contention that BWS’s system is “merely” an amalgamation of widely known ideas, technology, and approximately 20 to 25 “pieces” of open-source code, such a piecemeal element-by-element focus obscures the forest for the trees. “If two houses have identical rooms with many identical features and floorplans, that is strong circumstantial evidence that one house was derived from the other – particularly where the architect of the later-built house had resided in the earlier one.” Broker Genius, Inc. v. Volpone, 313 F. Supp. 3d 484, 508 (S.D.N.Y. 2018). As Dr. Maison observed, he chose to copy all the BWS code instead of finding its pieces and tying them together again because the former approach would save him “a lot of time.” That’s exactly the point – after spending approximately five-and-a-half years working on this program, three and a half of which were alongside Dr. Farwell, the self-proclaimed leader in the field, it is difficult to imagine that the system Dr. Maison developed would not fit together a set of open-source pieces in a unique



manner that “derive[d] independent economic value . . . from not being generally known . . .” 18 U.S.C. § 1839(3).

Lastly, plaintiff’s Exhibits B through D demonstrate that the two systems are virtually identical in programming, formatting, and display. This evidence includes the output of third-party software showing a 98–99% likelihood that plaintiff’s source code was plagiarized by defendants. Additionally, plaintiff introduced an email exchange demonstrating that Dr. Maison held plaintiff’s code on a Microsoft DevOps account and a Google Drive. Plaintiff maintains that it did not consent to defendant’s use of its software, and defendants do not contend that plaintiff ever provided them with any type of permission.

In response to this evidence, defendants advance two arguments: first, after Dr. Maison gave defendants’ program to plaintiff, plaintiff reengineered its code to facilitate this suit; and second, both parties’ programs appear similar in a code comparison because they are derived from the same open-source systems. The evidence on these contentions shows otherwise.

As to the first issue, Dr. Farwell and Dr. Maison contend that after they provided BWS’s counsel with their new program in good faith, BWS manipulated its code based on that information, submitted the new code and Dr. Maison’s work to a third-party software evaluator, and then submitted that manufactured comparison as evidence to support its motion. These are bold claims and defendants’ have certainly offered a valid line of inquiry to be pursued during discovery. But defendants present no meaningful evidence at this juncture to support their conjecture.

Defendants’ second position suffers from a similar dearth of evidence. If plaintiff and defendants’ systems truly derived from the same set of easily retrievable open-source code, or if defendants believed there was some flaw in plaintiffs’ code comparison, defendants could have

presented an alternative analysis. For example, Dr. Maison could have collected the relevant code he claims is openly available online, documented where he found it, and compared that code with his new system to show this Court that it too generated a 99% probability of plagiarism. But defendants did not provide such evidence.

Consequently, it is more likely than not plaintiff will prevail on the merits.

## **II. Plaintiff's Irreparable Harm**

Without a preliminary injunction, plaintiff is more likely than not to suffer irreparable harm. A showing of “irreparable harm is the single most important prerequisite for the issuance of a preliminary injunction.” Grand River Enter. Six Nations, Ltd. v. Pryor, 481 F.3d 60, 66 (2d Cir. 2007) (quoting Freedom Holdings, Inc. v. Spitzer, 408 F.3d 112, 114 (2d Cir. 2005)). To show irreparable harm, a plaintiff “must demonstrate that absent a preliminary injunction [it] will suffer ‘an injury that is neither remote nor speculative, but actual and imminent,’ and one that cannot be remedied ‘if a court waits until the end of trial to resolve the harm.’” Id.

Second Circuit law is clear that irreparable harm is presumed where a trade secret has been misappropriated. “A trade secret once lost is, of course, lost forever” and, as a result, such a loss “cannot be measured in money damages.” FMC Corp. v. Taiwan Tainan Giant Indus. Co., Ltd., 730 F.2d 61, 63 (2d Cir. 1984); see Computer Assocs. Int’l, Inc. v. Bryan, 784 F. Supp. 982, 986 (E.D.N.Y. 1992) (observing that loss of trade secrets is not measurable in terms of money damages and is thus considered irreparable harm).

Plaintiff has met the irreparable harm requirement in this instance.

## **III. The Balance of Hardships and the Public Interest**

Even when a plaintiff demonstrates a likelihood of success on the merits, the Court must nonetheless consider the balance of hardships “and issue the injunction only if [this] tips in the plaintiff’s favor.” Salinger, 607 F.3d at 80. Additionally, “the court must ensure that the ‘public

interest would not be disserved’ by the issuance of a preliminary injunction.” Id. (quoting eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006)). These remaining factors – the balance of hardships and the public interest – also weigh in favor of entering a preliminary injunction.

If plaintiff’s suit is ultimately successful, plaintiff’s trade secrets and work are still likely to be incalculably damaged without the assistance of a preliminary injunction. Because plaintiff is likely to succeed in its efforts to enforce its protected trade secrets, the relative hardships tip decidedly in its favor. Cf. Golden Krust Patties, Inc. v. Bullock, 957 F. Supp. 2d 186, 199–200 (E.D.N.Y. 2013) (the proposed injunction’s balance of hardships weighed in favor of plaintiff because the potential “harm” caused by the injunction was merely preventing the defendants from continuing their “wrongful conduct”). Additionally, the injunction’s structure will permit defendants to sell brainwave analysis software if it is sufficiently distinct from plaintiff’s system. To continue their business, defendants only need to demonstrate that their system does not overlap with any trade secrets held by BWS.

Relatedly, an injunction is in the public interest because it upholds the law that protects BWS’s trade secrets and intellectual property rights, and thus encourages future investment in innovation. See Syntel Sterling Best Shores Mauritius Ltd. v. Trizetto Grp., Inc., No. 15-cv-211, 2021 WL 1553926, at \*13 (E.D.N.Y. April 20, 2021); see, e.g., Chadha v. Chadha, No. 16-cv-3739, 2020 WL 1031385, at \*16 (E.D.N.Y. Mar. 2, 2020), report and recommendation adopted, 2020 WL 5228812 (E.D.N.Y. Aug. 3, 2020) (public interest in protecting copyrights, trade secrets, and proprietary information); Intertek Testing Servs., N.A., Inc. v. Pennisi, 443 F. Supp. 3d 303, 347 (E.D.N.Y. 2020) (public interest served by injunctive relief protecting secrecy of trade secrets and confidential information).

#### IV. Scope of the Injunction

Plaintiff has shown that an injunction is merited in this case. But the relief it requests is too broad. A preliminary injunction should not award a movant final relief except in the most extreme circumstances. Rather, it only preserves the status quo by preventing irreparable harm. See State of New York v. Nuclear Reg. Comm’n, 550 F.2d 745, 754 (2d Cir. 1977).

“Preliminary injunctive relief is improper where it would give the plaintiff substantially all the ultimate relief it seeks.” Holy Spirit Asso. for the Unification of World Christianity v. Town of New Castle, 480 F. Supp. 1212, 1214 (S.D.N.Y. 1979) (citing Triebwasser & Katz v. American Tel. & Tel. Co., 535 F.2d 1356, 1360 (2d Cir. 1976) (“The injunction granted below would in effect give the plaintiffs substantially the ultimate relief they seek . . . before there has been any trial of the issues and where the district court has not found that there has been a showing of probable success on the merits.”)).

To maintain the status quo here, any continued use or release of plaintiff’s proprietary information must be arrested. However, this Court recognizes that the parties dispute what components of plaintiff’s system are “confidential or proprietary information.”

Starting with the second issue, any publicly accessible component of plaintiff’s system is neither “confidential” nor “proprietary.” But, as discussed above, defendants have not demonstrated that any of plaintiff’s code is publicly available. Thus, “confidential or proprietary information” is defined as any portion of the program plaintiff originally submitted to Codequiry as its code.

Given this definition, it would dramatically alter the status quo to require defendants to (1) immediately return to plaintiff all documents and electronic files in their possession, custody or control containing BWS’s trade secrets; and (2) identify all persons and entities to whom they

have disclosed BWS trade secrets. Neither of these actions is necessary to ensure plaintiff's trade secrets are protected pending trial.

What is required, however, is an order preventing defendants from disclosing or continuing to use plaintiff's "confidential or proprietary information." Ideally this would not impact defendants' current contracts or prevent them from seeking new business. But given both parties' evidentiary showings, plaintiff's "confidential or proprietary information" must be defined broadly and protected. Therefore, this Court accepts plaintiff's offer to pay for a third party to evaluate the defendants' program and identify "confidential or proprietary information" prior to any software demonstration, sale, update, or transfer.

**V. Bond**

The Court declines to impose a bond on BWS at this point. Neither party has furnished any evidence of what the loss to defendants might be if the Court later determines that it entered the preliminary injunction improvidently. To the extent the injunction places defendants at risk of losing a particular sales opportunity or opportunities, they may move upon appropriate proof for the posting of a bond.

**CONCLUSION**

Plaintiff's motion for a preliminary injunction is granted. The preliminary injunction will be docketed separately.

**SO ORDERED.**

Digitally signed by  
Brian M. Cogan

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U.S.D.J.

Dated: Brooklyn, New York  
December 13, 2021